# TRANSLATION PATENT COOPERATION TREATY POT

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference  W0400T2	FOR FURTHER ACTIO	ER ACTION See Form PCT/IPEA/416							
International application No.	International filing date (day	/month/year) Priority da	te (day/month/year)						
PCT/JP2004/016991	16.11.2004		1.2003						
International Patent Classification (IPC) or nat	ional classification and IPC								
F27D17/00, B01D51/00, C04B7/60									
Applicant									
TAIHEIYO CEMENT CORP	ORATION								
	<ol> <li>This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</li> </ol>								
2. This REPORT consists of a total of	5	_ sheets, including this cover s	sheet.						
This report is also accompanied by A	NNEXES, comprising:								
a. (sent to the applicant and	to the International Bureau) a	total of 2	sheets, as follows:						
sheets containing re	sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative								
Instructions).	ede earlier sheets, but which t	his Authority considers contai	n an amendment that goes beyond						
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental								
	Bureau only) a total of (indica	te type and number of electroni	c carrier(s))						
(	,								
, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).									
This report contains indications relations	ing to the following items:								
Box No. I Basis of the	e report								
Box No. II Priority									
Box No. III Non-establi	ishment of opinion with regard	to novelty, inventive step and	industrial applicability						
Box No. IV Lack of uni	ty of invention								
	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
Box No. VI Certain doo	cuments cited								
Box No. VII Certain def	ects in the international applica	ition							
Box No. VIII Certain obs	Box No. VIII Certain observations on the international application								
Date of submission of the demand  Date of completion of this report									
Name and mailing address of the IPEA/JP	Autho	ized officer							
Faccimila No.	Tolonk	ana Na							

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/016991

Box	No. I		Basis of the report					
1.		_	to the language, this report is based on the internation der this item.	nal application in the language in which	it was filed, unless otherwise			
		This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:						
		∐ i	nternational search (Rule 12.3 and 23.1(b))					
		∐ F	publication of the international application (Rule 12.4)	)				
		L i	nternational preliminary examination (Rule 55.2 and/	for 55.3)				
2.	rece		to the <b>elements</b> of the international application, this fice in response to an invitation under Article 14 are					
		the inte	ernational application as originally filed/furnished					
	$\boxtimes$	the des	scription:					
		pages	1-10		as originally filed/furnished			
		pages*		received by this Authority on				
		pages*		received by this Authority on				
	$\boxtimes$	the cla	ims:					
		nos.	2-8		as originally filed/furnished			
		nos.*	1	as amended (together with	any statement) under Article 19			
		nos.*						
		nos.*						
	$\boxtimes$	the dra	wings:					
		sheets	fig. 1-4		as originally filed/furnished			
		sheets*	k	received by this Authority on				
		sheets*	k	received by this Authority on				
		a seque	ence listing and/or any related table(s) – see Supplement	ental Box Relating to Sequence Listing.				
3.		The an	nendments have resulted in the cancellation of:					
		□ t	he description, pages					
			the claims, nos.					
			the drawings, sheets/figs					
		t	the sequence listing (specify):					
		Па	any table(s) related to sequence listing (specify):					
4.			eport has been established as if (some of) the amend ave been considered to go beyond the disclosure as fil					
		t	he description, pages					
		t	the claims, nos.					
			the drawings, sheets/figs					
			the sequence listing (specify):					
		Па	any table(s) related to sequence listing (specify):					
*	If ite	ет 4 арр	lies, some or all of those sheets may be marked "supe	erseded."				

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/016991

Box			ticle 35(2) with regard to novelty, inventive step or industrial applicability; poorting such statement	
1.	Statement			
	Novelty (N)	Claims	1-8	YES
		Claims		NO
	Inventive step (IS)	Claims		YES
		Claims	1-8	NO
	Industrial applicability (IA	) Claims	1-8	YES
		Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP 09-301751 A (Ube Industries, Ltd.), 25
November 1997

Document 2: JP 02-116649 A (Tosoh Corp.), 01 May 1990

Claims 1 to 8

Document 1 cited in the international search report discloses a bleeder pipe for extracting the exhaust gas from a cement kiln, wherein an outer pipe is provided around the outside of the bleeder pipe so that a cavity for holding a cooling medium is formed between the bleeder pipe and the outer pipe (refer to claim 1), the kiln tail-side of the bleeder pipe is porous (refer to claim 6), and a plurality of holes with small diameters are provided to the periphery of the end part on the kiln tail-side of the bleeder pipe (refer to claim 7). Therein, document 1 indicates that cooling air flutes are connected to the outer pipe so that within the cavity that is formed by the outer pipe the cooling air flows towards the inside of the kiln tail as opposed to the outside of the kiln tail wall (refer to fig. 1 and paragraph [0014]); presents an illustration depicting that the cooling air is blown out in the direction opposite the direction in which the extracted exhaust gas

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

is sucked from the end of the bleeder pipe (refer to fig. 1); illustrates a configuration wherein the entire surface of the kiln tail-side of the bleeder pipe is configured from a porous substance (refer to fig. 3); indicates that it is acceptable for said porous substance to be a metal material, a sintered metal material or a sintered ceramic particle material with a plurality of conventional holes formed therein (refer to paragraph [0016]); presents an illustration depicting that holes are arranged in a plurality of stages along the direction in which the extracted exhaust gas is sucked so that the cooling air is blown in from a direction that is perpendicular to the direction in which the extracted exhaust gas is sucked (refer to fig. 3); illustrates a configuration wherein a plurality of small holes for blowing in the cooling air are formed in the periphery of the end part on the kiln tail-side of the bleeder pipe (refer to fig. 4 and paragraph [0017]); and presents an illustration depicting that the cooling air is blown via the holes in the end of the bleeder pipe in a direction that is perpendicular to the direction in which the extracted exhaust gas is sucked (refer to fig. 4).

Document 2 cited in the international search report discloses a bypass pipe with an end that opens onto the interior of the duct so as to pass a portion of the kiln exhaust gas to the outside of the system, wherein said bypass pipe has a dual-pipe structure that comprises an inner pipe, which is connected to the gas bleeding/discharging system, and an outer pipe, which guides air to the vicinity of the end of the inner pipe that protrudes into the interior of the duct (refer to the claims).

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Document 1 discloses a feature wherein the cooling air is infused in a manner such that a spiralling current is generated, as is set forth in claim 5 of the present application (refer to paragraphs [0015] and [0018] and fig. 2, 6, 5 and 7 of document 1); however the generation of a spiralling current is not an essential feature of the invention, and thus the scope of the invention disclosed in document 1 includes embodiments that do not generate a spiralling current, as can be seen from fig. 3 or 4, in which case it is considered to be possible for the cooling air to reach the center part.